Appendix A
Wetlands Watershed Working Group

Working Group's List of Recommendations

The Wetlands Watershed Working Group was formed from members of the Wetlands Task Force. The Task Force identified a number of issues that needed to be discussed in depth that concerned the relationship of wetlands and the evolving DEM Watershed Approach. The following recommendations resulted from discussions of the Wetlands Watershed Working Group. The implementation of each recommendation was further categorized as needing statutory, regulatory or administrative remedies.

The group then prioritized each recommendation using the following ranking system: 3 = High Priority, 2 = Medium Priority, 1 = Low Priority, 0 = No Priority, -1 Bad Idea. The numerical values in bold are the average ranking of each category and the specific item in each category.

S = Statutory, R = Regulatory, A = Administrative

1.0 Incorporate watershed concept into wetlands program. (1.99)

1.1. RIDEM wetlands permitting, enforcement and planning/policy groups should be integrated into the watershed approach. RIDEM should articulate specific aspects of the wetlands program that should employ the watershed approach and how it should be done. (R/A) **2.67**

1.2. The RIDEM wetland application form (and all applications) should be amended to add a space to enter the watershed within which the proposed project occurs. (A) **2.5**

1.3. Wetland alteration data (i.e. permitted impacts) should be maintained by watershed. (A) **2.67**

1.4. RIDEM permit staff could be organized on a watershed basis (MADEP does this already, but their wetlands staff is more in an oversight role than RIDEM's staff which actually processes permits). (A) **1.67**

1.5. RIDEM wetland permit decision making should include watershed stakeholder review and comment. Specifically, RIDEM should put information regarding formal actions of the department on the web (administratively complete open permit applications, permit decisions, notices of violations, restoration orders). The information should be retrievable by town, watershed, plat & lot, and geographic coordinates. (A) **2.33**

1.6. RIDEM should support research concerning wetland – watershed relationships including:(A) **1.5**
   1.6.1. Species level effects of increased pollutant loading **1.17**
   1.6.2. The natural assimilative capacity of wetlands for pollutants **1.5**

1.6.3. Cumulative impacts and cumulative values assessment **2.33**
1.6.4. Evaluation of current experience / state-of-the-art ~~experience~~ of other states with wetland regulation in context of watershed approach **1.83**
1.6.5. Identifying current RI watershed data sources **2.17**
1.6.6. Evaluating scientific theories, evidence related to "watershed approach" **1.8**
1.6.7. Determining the types of problems which stem from lack of a "watershed approach" in wetland protection/regulation **1.33**
1.6.8. How secondary impacts such as induced growth can be accounted for in a watershed approach **1.67**

1.7. RIDEM should develop guidelines for use by staff and consultants on the application of the watershed approach to the assessment of wetland functions, project impacts, and mitigation. (R/A) **2.4**
1.7.1. RIDEM should clarify the influence that wetland size, type, and setting have on functional performance, societal benefits, and level of protection warranted. **2.17**
1.7.2. RIDEM should develop different standards for screening projects (exempt/insignificant/significant category of application review), depending on individual watershed characteristics. **1.33**
1.7.3. RIDEM should articulate procedures for incorporating cumulative impact assessment into wetland permit decisions. **2.17**
1.7.4. Evaluation of the impact of proposed projects at different scales is recommended (i.e. neighborhood, subwatershed, and watershed) RIDEM should provide guidelines regarding watershed scales to be used for wetland~~/~~project evaluations. **2.33**
1.7.5. TMDLs should be integrated into wetland water quality impact assessment and mitigation (BMPs/performance standards). **1.67**
1.7.6. Guidelines or standard methods should be devised for integrating project water quality assessment modeling into watershed water quality modeling. **1.67**
1.7.7. Phase II Stormwater regulations should be implemented. **2.25**
1.7.8. The two pilot watersheds should begin to test methods for integrating the RIDEM wetlands program into the watershed approach. **2.5**
1.7.9. RIDEM should provide guidance & incentives for individual watershed groups to focus on wetlands and develop an action agenda to address needs/problems. **2.33**
1.7.10. The wetland component to the watershed approach should be integrated into land acquisition planning by RIDEM itself and through RIDEM technical assistance and grants to others. **2.17**
1.7.11. RIDEM should develop plans to deal with watersheds that span jurisdictional boundaries (intrastate/interstate). **1.33**

1.8. Include consideration of wetlands in water quality standards (& decisions) per EPA "Draft Core Essential Elements of Comprehensive State & Tribal Wetlands Program" (R/A): **2.2**
1.8.1. Establish and assign designated uses to wetlands (e.g. aquatic life use support). **1.83**
1.8.2. Improve water quality standards where appropriate, to better reflect conditions found in wetlands. **2.33**

1.8.3. Establish biological assessment methods and biological standards (narrative & numeric) for wetlands. **1.83**

1.8.4. Incorporate wetlands into anti-degradation policy. **2**

2. Allow for local input on decisions concerning wetlands issues, especially who determines if a project is significant or insignificant. (2.08)

2.1. RIDEM should identify ways to incorporate input from citizens and local government in preliminary determinations. Input could be active where DEM notifies groups of preliminary meetings or can be passive by posting information on the DEM homepage.(A) **2.17**

2.2. When soliciting local input, RIDEM should consider stakeholders within the project watershed, not just the municipality. (A) **2.17**

2.3. RIDEM's determination of whether a project is significant or insignificant should consider the context of the project (area, hydrology, and functions) within the watershed at different scales. (R/A) **1.5**

2.4. Provide permit & enforcement information to public on a timely basis via the Internet (see item 1.5, 2.1 above). (A) **2.5**

3. ***Allow flexibility that permits the elimination of definitional wetlands of limited value. (1.93)***

(The working group recommended that the original wording of this issue be changed from "…wetlands of no value." to "… wetlands of limited value." in recognition of the fact that most wetland professionals believe that all wetlands have some value.)

3.1. In RIDEM's review of applications and wetland violations, wetland value should be assigned, in part, in consideration of its watershed context (e.g. a wetland may appear small and of little value, but may actually be more significant because it represents a rare type or performs a rare function within the watershed). (R/A) **2**

3.2. Cumulative impacts to small wetlands may result in significant wetland losses in a watershed (e.g. vernal pools are often small, and the loss of several small vernal pools might represent a significant loss of amphibian breeding sites within a watershed). See item 5 below) **1.8**

3.3. Level of protection should reflect importance of wetland in context of watershed (see item 4 below). **2**

4. Regulations are value neutral and apply the same level of protection to all wetlands. (2.6)

4.1. The level of wetland protection afforded by RIDEM should consider their importance in the context of their watershed (with regard to water - related functions). The context for evaluating certain wetland functions such as wildlife

habitat may include other types of evaluation areas (e.g. contiguous tracts of forest, which might span watershed divides). (R/A) **2.4**

4.2. The level of wetland protection should relate to the type and functions of wetland and its sensitivity to certain land uses / site development activities. Table 1 provides an approach where buffer zone width is tiered by type of wetland (tiered buffer zone approach). Such a table helps to provide/articulate the rationale for wetland permit decisions. It also can provide communities guidance regarding its own resource protection initiatives. (R) **2.8**

5. ***Regulations need to assess cumulative alterations on a wetlands system. (R/A) (2.28)***

5.1. RIDEM wetland policies and review criteria should articulate/address the following:

5.1.1. Cumulative impacts to small wetlands may result in significant wetland losses in a watershed (e.g. flood storage ~~vernal~~). **2.33**

5.1.2. RIDEM should identify wetland functions and values that are cumulative in nature. **2.33**

5.1.3. The abundance of a wetland function in a watershed affects the importance of a given wetland with regard to its performance of that function. **2.4**

5.1.4. It is useful to consider how an individual wetland loss will affect the overall performance of a wetland function in a watershed. **2**

5.1.5. The importance of a given wetland function within a watershed affects the importance (significance) of individual wetlands which perform that function (e.g. in a watershed with public water supplies degraded by excessive nutrient loads, loss of wetlands which provide nutrient removal/transformation may be more significant than similar wetland losses in a watershed without water quality problems). **2.17**

5.2. RIDEM should treat alterations of small wetlands as just as serious an issue as alteration of large wetlands when key functions involved are clearly cumulative in nature (e.g. flood reduction, water quality improvement, amphibian breeding habitat). **2.33**

5.3. RIDEM should investigate the degree to which existing RIDEM wetland regulation exemptions could cause problems due to cumulative impacts (e.g. vista pruning). **2**

5.4. Add additional exemptions to the rules only when it is clear that the cumulative impact of the exempted activity over time and space is not likely to be significant to the functions and values of wetlands. **2**

5.5. In absence of a protocol for cumulative impact assessment, RIDEM should deal with potential cumulative impacts by promoting minimization of impacts of all projects. **2.8**

5.6. RIDEM should develop an approach (guidelines) for assessment of cumulative impacts (new CRMC Special Area Management Plans for Narrow River and Salt Ponds include consideration of cumulative impacts). **2.17**

5.7. RIDEM should log watershed wetland gains and losses, including area, type, functions/values, characteristics. Alterations outside of biological wetlands should

also be tracked, including especially alterations to Perimeter Wetland and Riverbank Wetland. **2.6**

6. Regulation of adjacent upland areas should be discussed and these areas should be evaluated for [indirect] wetland impacts. (2.42)

6.1. RIDEM should identify mechanisms to minimize impacts to the physical, chemical and biological character of wetlands caused by alteration of adjacent uplands. **2.83**

6.2. RIDEM should provide improved wetland protection from impacts occurring outside the boundary of regulated areas through enforcement of performance standards at the boundary (e.g. suspended solids loading from construction site runoff might be effectively regulated through RIDEM's RIPDES Stormwater permits for construction activity). **2.5**

6.3. RIDEM should develop a means of addressing situations where there is a clear wetland impact resulting from a project occurring outside DEM jurisdiction. ~~6.3.1~~ BMPs and performance standards help to address such potential problems (e.g. NPS loading as addressed through RIDEM water quality regulations). **2**

6.4. RIDEM should promote/support improved wetland protection through local initiatives i.e.:

- 6.4.1. More stringent ISDS regulations **2.17**
- 6.4.2. Watershed protection regulations **2**
- 6.4.3. Extended buffer zones and setbacks **2.17**
- 6.4.4. Expanded BMPs or more stringent BMPs – for example requiring increased removal rates for pollutants in stormwater in watersheds of impaired waterbodies (e.g. Newport water supply watersheds) **2.33**
- 6.4.5. Watershed specific BMPs / guidelines **2.5**
- 6.4.6. Locality can require applicant to go to RIDEM for wetlands review **1.83**
- 6.4.7. Performance standards **2.6**
- 6.4.8. Special area management plans **3**
- 6.4.9. Role for RIDOA Statewide Planning regarding State Guide Plans and local Comprehensive Plans. (e.g. through development of issue oriented Guide Plans such as the RI Nonpoint Source Pollution Management Plan, and watershed oriented Guide Plans such as the Scituate Reservoir Watershed Management Plan). **2.67**
- 6.4.10. Role of RIDEM in promoting local wetland protection initiatives (education, funding, model ordinances, etc.) **2.83**
- 6.4.11. RIDEM education outreach to communities should incorporate information/guidance on watershed approach. **3**
- 6.4.12. Possible use of local conservation commissions / agents for RIDEM wetland compliance inspections (follow-up on permits and restorations) – training would be required. **2.17**
- 6.4.13. Means for local conservation commissions to have more impact on RIDEM wetland decisions. **2.5**
- 6.4.14. Vernal pool protection: a) have local commissions identify vernal pools, and b) assist municipalities and watershed associations in identifying & implementing mechanisms for avoiding impacts to vernal pools and for protecting significant areas of upland forest around the pools. **2.5**

6.5. RIDEM should develop guidelines for major projects outside of wetland jurisdictional resource areas that have the potential for significant wetland impacts. Special consideration (attention) should be given to any projects proposed outside of wetlands jurisdictional resource areas that have a high probability of adversely affecting the quality or quantity of water usually delivered to a wetland. Examples of qualifying projects should be developed (e.g. moderate to high yield wells, landfill caps/liners, golf courses, creation of large impermeable surfaces). (A) 2.5

6.6. RIDEM should develop a permit program for major water diversions. (S/R/A) 1.83

7. ***A wetland mitigation policy should be considered. (1.83)***

7.1. RIDEM should articulate the purpose, the need and major components for a wetland mitigation policy. **1.67**

7.2. RIDEM should have a wetland mitigation policy/guidelines beyond that indirectly referenced in the existing regulations. **1.83**

7.3. The term "mitigation" should be broadly interpreted by RIDEM to include mitigation of indirect impacts. **1.5**

7.4. RIDEM should develop guidelines for mitigation/restoration plantings (upland buffer plantings and wetland creation plantings) **1.83**

7.5. Best management practices (and performance standards) should be articulated for different types of projects and project features as they relate to wetland protection. (consider matrix approach: project type/feature by wetland type/function). **2.67**

7.6. If a compensatory mitigation policy were developed by RIDEM, it should consider compensation within the watershed. RIDEM should consider/review Massachusetts's procedure for identifying functional deficits within a watershed and identifying and ranking mitigation sites for their mitigation-banking program. **1.67**

7.7. RIDEM should strive for consistency with federal policy where appropriate. **1.67**

8. ***Other: (2.92)***

8.1. CRMC's implementation of the RI Freshwater Wetlands Act should be consistent with any new policies, regulations and procedures implemented as a result of these recommendations. **3**

8.2. RIDEM should continue to foster improved interagency coordination amongst federal, state, and local authorities. **2.83**

Table 1. Tiered buffer zones and key considerations in assignment of wetland types to buffer tiers.

Tier/Wetland type	*Key considerations*
TIER 1 ***(150-ft buffer)***	
• Perennial watercourses	• ***High aquatic habitat value*** • ***High water-based recreation potential*** • ***High water supply potential*** • ***High aesthetic value*** • ***Provides linkages among other wetland types*** • ***High sensitivity to water quality impacts*** • ***High offsite impact potential*** • ***High wetland wildlife habitat value in bordering land*** • ***Bordering land is detritus source for aquatic food chains*** • ***High flood hazard in bordering land*** • ***High erosion hazard in bordering land***
TIER 2 ***(100-ft buffer)***	
• Permanent or semi-permanent standing water bodies and permanently or semipermanently flooded vegetated wetlands	• ***High aquatic habitat value*** • ***High water-based recreation potential*** • ***High water supply potential*** • ***High-moderate flood storage potential*** • High aesthetic value • High sensitivity to water quality impacts • Moderate offsite impact potential • High wetland wildlife habitat value in bordering land • Bordering land is detritus source for aquatic food chains • High-moderate flood hazard in bordering land • High-moderate erosion hazard in bordering land

Table 1. (Continued)

Tier/Wetland type	*Key considerations*
Bogs and fens	• ***Unique or restricted flora*** • ***High-moderate habitat value for wetland-dependent wildlife*** • ***High aesthetic value*** • ***High educational value*** • ***Extremely high sensitivity to nutrient additions*** • ***Extremely high sensitivity to human foot traffic***
• Natural Heritage sites	• ***Rare, threatened, or endangered plants, animals, or habitats*** • ***High educational and research value*** • ***High sensitivity to water quality impacts*** • ***High aesthetic potential***
• Critical amphibian habitats (CAH)[1]	• ***Required for reproduction by listed species*** • ***Extremely high sensitivity to water quality impacts*** • ***Essential amphibian nonbreeding habitat in bordering land*** • ***Bordering land is detritus source for aquatic food chains***
TIER 3 (75-foot buffer)	
• Seasonal standing water bodies other than CAH[1]	• ***High-moderate habitat value for wetland-dependent wildlife*** • ***High-moderate flood storage value*** • ***Essential habitat for certain aquatic invertebrates*** • ***Extremely high sensitivity to water quality impacts*** • ***Bordering land is detritus source for aquatic food chains***

Table 1. (Concluded)

Tier/Wetland type	*Key considerations*
• Seasonally or temporarily flooded vegetated wetlands other than CAH[1]	• ***High-moderate habitat value for wetland-dependent wildlife*** • ***High-moderate flood storage value*** • ***High water quality improvement value*** • ***Potential detritus source for aquatic food chains*** • ***Seasonal water-based recreation potential*** • ***Moderate sensitivity to water quality impacts*** • ***Potential flood hazard in bordering land*** • ***High water table hazard in bordering land***
• Intermittent watercourses	• ***High-moderate aquatic habitat value*** • ***Low-moderate water supply potential*** • ***High sensitivity to water quality impacts*** • ***High offsite impact potential*** • ***Bordering land is detritus source for aquatic food chains*** • ***High-moderate flood hazard in bordering land*** • ***High-moderate erosion hazard in bordering land***
TIER 4 (50-ft buffer)	
• ***Seasonally saturated vegetated wetlands***	• ***High water quality improvement value*** • ***High open space value*** • ***Moderate-high wildlife habitat value*** • ***Moderate groundwater discharge value*** • ***High water table hazard in bordering land***

[1]Critical amphibian habitats (CAH) are those freshwater wetland habitats, commonly referred to as vernal pools, that support breeding wood frogs, spotted salamanders, or marbled salamanders.